



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN# 20131209001
TLE4275QKTTRQ1 and TL720M05QKTTRQ1 copper wire - CMS C1308075
Change Notification**

Date: 1/17/2014
To: MOUSER PCN

Dear Customer:

This is the final announcement of change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. If you require samples to conduct an evaluation, please request within the 30 days—samples are not built ahead of the change. Please see the schedule on the following pages for sample availability dates. You may contact the PCN Manager or your local Field Sales Representative to acknowledge this PCN and request samples.

The changes discussed within this PCN will not take effect any earlier than the proposed 1st ship date indicated on the following pages, unless customer agreement has been reached on an earlier implementation of the change.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

Sincerely,

PCN Team
SC Business Services
Phone: +1(214) 480-6037
Fax: +1(214) 480-6659

20131209001
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
TLE4275QKTTRQ1	null
TL720M05QKTTRQ1	null

Technical details of this Product Change follow on the next page(s).

PCN Number:	20131209001		PCN Date:	01/17/2014	
Title:	TLE4275QKTTRQ1 and TL720M05QKTTRQ1 copper wire - CMS C1308075				
Customer Contact:	PCN_ww_admin_team@list.ti.com		Phone:	+1(214)480-6037	
Dept:	Quality Services				
Proposed 1st Ship Date:	06/17/2014		Estimated Sample Availability:	Upon request	
Change Type:					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Design
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Site
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Site
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>			Part number change		
PCN Details					
Description of Change:					
Change devices from gold to copper bond wire.					
Reason for Change:					
Cost containment. The gold market continually increases the cost of gold bond wire.					
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):					
No anticipated impact.					
Changes to product identification resulting from this PCN:					
None					
Product Affected:					
TLE4275QKTTRQ1 TL720M05QKTTRQ1					

Qualification Data:

Automotive New Product Qualification Plan/Summary (As per AEC-Q100 and JEDEC Guidelines)

Supplier Name:	Texas Instruments Inc.	Supplier Wafer Fabrication Site:	TI Sherman fab - SFAb
Supplier Code:		Supplier Die Rev	D
Supplier Part Number:	TLE4275QKTTRQ1	Supplier Assembly/Test Site:	NFME
Customer Name:		Supplier Package/Pin:	KTT/5
Customer Part Number:	TLE4275QKTTRQ1	Pb-Free Lead Frame (Y/N):	Y
Device Description:	LDO	"Green" Mold Compound (Y/N):	Y
MSL Rating:	LEVEL3	Operating Temp Range:	-40 to 125C
Peak Solder Reflow Temp:	245C	Automotive Grade Level (1):	3 (Q)
Prepared by Signature:	Mandy Xu	Date:	11/25/2013

Test	#	Reference	Test Conditions	Min Lots (2)	SS / lot (2)	Min Total (2)	Results Lot/pass/fail	Comments: (N/A =Not Applicable)	Exceptions to AEC - Q100
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TEST GROUP A – ACCELERATED ENVIRONMENT STRESS TESTS (3)

PC	A1	JESD22-113 J-STD-020	Preconditioning: SMD only; Moisture Preconditioning for THB/HAST, AC/UHST, TC, HTSL, and HTOL	Performed on ALL SMD devices prior to THB/HAST, AC/UHST, TC and PTC					
THB or HAST	A2	JESD22-A101 JESD22-A110	Temperature Humidity Bias: 85°C/85%/1000 hours Highly Accelerated Stress Test: 130°C/85%/96 hours or 110°C/85%/264 hours	3	77	231	3/231/0		
AC or UHST	A3	JESD22-A102 JESD22-A118	Autoclave: 121°C/15 psig/96 hours Unbiased Highly Accelerated Stress Test: 130°C/85%/96 hours or 110°C/85%/264 hours	3	77	231	3/231/0		
TC	A4	JESD22-A104	Temperature Cycle: -65°C/+150°C/500 cycles	3	77	231	3/231/0		
PTC	A5	JESD22-A105	Power Temperature Cycling: -40°C/+125°C/1000 cycles	1	45	45	1/45/0	QBS to TLE4275KTTRQ1 (Au wire version)	
HTSL	A6	JESD22-A103	High Temperature Storage Life: 150°C/1000 hours or 175°C/500 hours	1	45	45	1/45/0		

TEST GROUP B – ACCELERATED LIFETIME SIMULATION TESTS (3)

HTOL	B1	JESD22-A108	High Temp Operating Life: 125°C/1000 hours 150°C/408 hours	3	77	231	3/231/0	QBS to TLE4275KTTRQ1 (Au wire version)	
ELFR	B2	AEC-Q100-008	Early Life Failure Rate:	3	800	2400	3/800/2400	QBS to TL1431CDRG4	

TEST GROUP C – PACKAGE ASSEMBLY INTEGRITY TESTS (3)

WBS	C1	AEC-Q100-001	Wire Bond Shear Test: (Cpk > 1.67)	30 bonds	5 parts min.	30 bonds	1/30/0		
WBP	C2	Mil-Std-883 Method 2011	Wire Bond Pull: Each bonder used (Cpk > 1.67)	30 bonds	5 parts min.	30 bonds	1/30/0		
SD	C3	JESD22-B102	Solderability: (>95% coverage) 8 hr steam age (1 hour for Au-plated leads)	1	22	22	1/22/0		
PD	C4	JESD22-B100 JESD22-B108	Physical Dimensions: (Cpk > 1.67)	3	10	30	3/10/30		
SBS	C5	AEC-Q100-010	Solder Ball Shear: (Cpk > 1.67)	5 balls	10 parts min.	50		N/A to non-solder ball surface mount devices	
LI	C6	JESD22-B105	Lead Integrity:	10 leads	5 parts min.	50		N/A	

TEST GROUP D – DIE FABRICATION RELIABILITY TESTS

EM	D1	JESD61	Electromigration:	-	-	-		N/A	
TDDDB	D2	JESD35	Time Dependant Dielectric Breakdown:	-	-	-		N/A	
HCI	D3	JESD60 & 28	Hot Injection Carrier:	-	-	-		N/A	
NBTI	D4	-	Negative Bias Temperature Instability:	-	-	-		N/A	
SM	D5	-	Stress Migration:	-	-	-		N/A	

TEST GROUP E- ELECTRICAL VERIFICATION

TEST	E1	User/Supplier Specification	Pre and Post Stress Electrical Test:	All	All	All		100% of qualification devices	
HBM	E2	AEC-Q100-002	Electrostatic Discharge, Human Body Model: (2kV - H2 or better)	1			500V 3/0 1000V 3/0 1500V 3/0 2000V 3/0	QBS to TLE4275KTTRQ1 (Au wire version)	
CDM	E3	AEC-Q100-101	Electrostatic Discharge, Charged Device Model: (750V corner leads, 500V for all other pins)	1			250V 3/0 500V 3/0 750V 3/0	QBS to TLE4275KTTRQ1 (Au wire version)	
LU	E4	AEC-Q100-004	Latch-Up:	1	6	6	1/6/0	QBS to TLE4275KTTRQ1 (Au wire version)	
ED	E5	AEC-Q100-009	Electrical Distributions: (Cpk > 1.67)	1	30	30	125C – 30/0 25C – 30/0 -40C – 30/0	QBS to TLE4275KTTRQ1 (Au wire version)	

- (1) Grade 0 (or A): -40°C to +150°C ambient operating temperature range
Grade 1 (or Q): -40°C to +125°C ambient operating temperature range
Grade 2 (or T): -40°C to +105°C ambient operating temperature range
Grade 3 (or I): -40°C to +85°C ambient operating temperature range
Grade 4 (or C): -0°C to +150°C ambient operating temperature range
- (2) These are recommended minimum lot/sample sizes. Lot/sample size may be reduced depending on available data.
- (3) Generic data may be used.

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Supplier Name:	Texas Instruments Inc.	Supplier Wafer Fabrication Site:	TI Sherman fab - SFAb
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Quality and Reliability Data Disclaimer

TI assumes no liability for applications assistance or customer product design. Customers are responsible for their products and applications using TI components. To minimize the risks associated with customer products and applications, customer should provide adequate design and operating safeguards. Quality and reliability data provided by Texas Instruments is intended to be an estimate of product performance based upon history only. It does not imply that any performance levels reflected in such data can be met if the product is operated outside the conditions expressly stated in the latest published data sheet or agreed-to customer specification for a device.

Reliability data shows characteristic failure mechanisms of the specific environmental stress as documented in the industry standards for each stress condition.

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com